

LOUIS ET AL.  
"Power Amplifier Control Based On  
On Load Impedance And Methods"  
Atty. Docket No. CS22853RL

Appl. No. 10/691,024  
Confirm No. 5009  
Examiner H. Choe  
Art Unit 2817

## REMARKS

### Request for Reconsideration, Informal Matters, Claims Pending

The non-final Office action mailed on 14 July 2005 has been considered carefully. Reconsideration of the claimed invention in view of the amendments above and the discussion below is respectfully requested.

Claims 3, 6-8, 10, 13-15, 19, 20 and 23-26 were indicated as being allowable but stand objected for dependence on allowed base Claims.

Claims 1-26 are pending.

### Allowability of Claims Over Dacus

#### Rejection Summary

Claims 1, 2, 4, 5, 9, 11, 12, 16-18, 21 and 22 stand rejected under 35 USC 102(b) as being anticipated by U.S. Patent No. 6,008,698 (Dacus). Office Action, 14 July 2005.

#### Allowability of Claim 1

Regarding Claim 1, Dacus fails to disclose or suggest a

... method of operating an amplifier, the method comprising  
monitoring a characteristic of the amplifier during an  
operating interval of the amplifier;

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providing an open-loop control signal to the amplifier during a subsequent operating interval of the amplifier, the open-loop control signal based on the characteristic monitored during a previous operating interval.

Dacu discloses a real-time closed-loop analog feedback system, Dacu, col. 4: 60 – col. 5: 13, for with controlling transmitter output power based on the distance between a radio handset and a base station. Dacu, col. 1: 60 – col. 2: 10. Contrary to the Examiner's suggestion, Dacu does not disclose or suggest an open-loop amplifier control system. Claim 1 is thus patentably distinguished over Dacu.

#### Allowability of Claim 2

Regarding Claim 2, Dacu fails to disclose or suggest in combination with Claim 1,

... comparing the characteristic monitored with a reference characteristic;  
selecting the open-loop control signal provided to the amplifier during the subsequent operating interval based on the comparison of the characteristic monitored with the reference characteristic.

Dacu controls the amplifier output dynamically using a biasing signal based on a difference between a control signal and a current tracking signal. Dacu, col. 4: 60 – col. 5: 13. Dacu therefore does not select an open loop control signal. The control mechanism disclosed by Dacu would control output power of a burst based on detection and feedback during the same burst begin controlled. Claim 2 is thus further patentably distinguished over Dacu.

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#### Allowability of Claim 4

Regarding Claim 4, Dacu fails to disclose or suggest in combination with Claim 1,

... monitoring the characteristic of the amplifier includes detecting at least one of an output power of the amplifier, a supply current of the amplifier, and a supply voltage of the amplifier.

Dacu does not disclose or suggest an open-loop control system. Claim 4 is thus further patentably distinguished over the Dacu.

#### Allowability of Claim 5

Regarding Claim 5, Dacu fails to disclose or suggest in combination with Claim 1,

... monitoring the characteristic of the amplifier includes detecting a change in at least one of a supply voltage or supply current when the amplifier is turned ON.

Dacu does not disclose or suggest an open-loop control system. Claim 4 is thus further patentably distinguished over the Dacu.

#### Allowability of Claim 9

Regarding Claim 9, Dacu fails to disclose or suggest in combination with Claim 1,

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... providing the open-loop control signal to the amplifier includes providing to the amplifier a control signal that is not modified by feedback during an operating interval of the amplifier.

Contrary to the Examiner's assertion, the integrator (66) of Dacu is part of the closed-loop feedback, which provides the biasing signal  $S_G$  to the amplifier. Dacu, col. 4: 60 – col. 5: 13. Claim 9 is thus further patentably distinguished over Dacu.

#### Allowability of Claim 11

Regarding Claim 11, contrary to the Examiner's assertion, Dacu fails to disclose or suggest a

... method of operating an amplifier, the method comprising:  
activating the amplifier by providing an open-loop control signal to the amplifier;  
monitoring a characteristic of the amplifier when the amplifier is active;  
generating an updated open-loop control signal based on the characteristic monitored.

Dacu discloses a real-time closed-loop analog feedback system, Dacu, col. 4: 60 – col. 5: 13, for with controlling transmitter output power based on the distance between a radio handset and a base station. Dacu, col. 1: 60 – col. 2: 10. Contrary to the Examiner's suggestion, Dacu does not disclose or suggest an open-loop amplifier control system. Claim 11 is thus patentably distinguished over Dacu.

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#### Allowability of Claim 12

Regarding Claim 12, Dacu fails to disclose or suggest in combination with Claim 1, "... subsequently activating the amplifier by providing the updated open-loop control signal to the amplifier." As noted, Dacu does not disclose or suggest an open-loop control system. Claim 12 is thus further patentably distinguished over the Dacu.

#### Allowability of Claim 16

Regarding Claim 16, Dacu fails to disclose or suggest in combination with Claim 1,

... monitoring the characteristic of the amplifier includes detecting at least one of an output power of the amplifier, a supply current of the amplifier, and a supply voltage of the amplifier.

As noted above, Dacu does not disclose or suggest an open-loop control system. Claim 16 is thus further patentably distinguished over the Dacu.

#### Allowability of Claim 17

Regarding Claim 17, Dacu fails to disclose or suggest in combination with Claim 11,

... generating the updated open-loop control signal based on the characteristic monitored includes correcting a prior open-loop control signal based on the characteristic monitored relative to a reference frame.

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Dacu does not generate an updated control signal by correcting a prior open-loop correction signal. Claim 17 is thus further patentably distinguished over the Dacu.

#### Allowability of Claim 18

Regarding Claim 18, Dacu fails to disclose or suggest in combination with Claim 11,

... comparing the characteristic monitored with a reference, generating the updated open-loop control signal includes correcting a prior open-loop control signal based on the comparison of the characteristic monitored with the reference.

Dacu does not generate an updated open-loop control signal or correct a prior open-loop control signal. Claim 11 is thus further patentably distinguished over the Dacu.

#### Allowability of Claim 21

Regarding Claim 21, contrary to the Examiner's assertion, Dacu fails to disclose or suggest a

... method in an amplifier, the method comprising:  
operating the amplifier during active intervals by providing open-loop control signals to the amplifier;  
monitoring a change in load impedance at an output of the amplifier;

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providing an open-loop control signal to the amplifier based on the change in load impedance monitored during at least one previous active interval of the amplifier.

Dacu discloses a real-time closed-loop analog feedback system for with controlling transmitter output power based on the distance between a radio handset and a base station. Dacu, col. 1: 60 - col. 2: 10. Contrary to the Examiner's suggestion, controlling an amplifier output based on its distance to the base station is not the same as controlling an amplifier output based on a change in output impedance. Claim 21 is thus patentably distinguished over Dacu.

#### Allowability of Claim 22

Regarding Claim 22, Dacu fails to disclose or suggest in combination with Claim 21,

... monitoring the change in load impedance by detecting a characteristic of one of a supply current or supply voltage provided to the amplifier,  
providing the open-loop control signal to the amplifier based on the characteristic of the supply current or supply voltage monitored.

Contrary to the Examiner's assertion, there is no disclosure in Dacu of monitoring load impedance by detecting a change in supply current or voltage. Claim 22 is thus further patentably distinguished over Dacu.

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**Prayer For Relief**

In view of the amendments and the discussion above, the Claims of the present application are in condition for allowance. Kindly withdraw any rejections and objections and allow this application to issue as a United States Patent without further delay.

Respectfully submitted,

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